

On the structure-function relationship of heparins

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On the Structure-Function Relationship of Heparins

1. Chemical and enzymatic degradation of heparin molecules produces specific changes or end-residues of fragments that have no functional significance, hence LMWHs and UFH are different because they are different MW subsets of the same family of active molecules. *(This thesis)*
2. An ideal test for a drug effect is that one that directly reflects the effect of a drug on the relevant pathogenic mechanism. In thrombosis and haemostasis, clotting tests do not fulfill this condition. *(This thesis)*
3. The inhibition of the endogenous thrombin potential (ETP) is identical for LMWH and for UFH as long as fractions of the same MW are compared. *(This thesis)*
4. The length of the heparin determines the probability of adsorbing an enzyme molecule. This is of no rate-limiting effect for thrombin decay and in FXa decay, the effect of increased binding is counteracted by non-productive binding at $M_r > 10.000$. *(This thesis)*
5. The non reducing-end residues of the pentasaccharide function both to recognize the native low-heparin-affinity conformation of antithrombin and to induce and stabilize the activated high-heparin affinity conformation. *(Desai, R.D et al, J Biol Chem 273, 7478-7487, 1998)*
6. The quest for high anti FXa-anti thrombin ratios in LMWHs lacks a scientific basis but led to good products, indicating that pharmacological research is an art as well as a science.
7. The clotting of blood is like the T.V news, it is what the people see but it does not necessarily reveal the mechanism behind.
8. Insulin resistance is a pathologic mark of patients with glucose intolerance and NIDDM. Whether this syndrome represents the primary defect is still a matter of dispute.
9. Manuscript: something submitted in haste and returned at leisure. *(Oliver Herford)*
10. You may have two of three choices: (1) Enjoy your job. (2) Work within the law. (3) Make lots of money.
11. The test of a first –rate intelligence is the ability to hold opposed ideas in the mind at the same time, and still retain the ability to function. *(F. Scott Fitzgerald)*